

IN THE CLAIMS

Please cancel claims 17-18, 22, 30-31, and 33-34, without prejudice or disclaimer.

Please amend claims 19-21, 23-29, and 32, and add new claims 35-40 as follows:

Claims 1-18 (canceled).

19. (currently amended) The stroboscopic display device according to Claim [[17]] 37 that has in ~~the~~ a geometrical plane of said carrier a balancer cantilevered onto the rotary output drive shaft oppositely to the carrier.

20. (currently amended) The stroboscopic display device according to Claim 19 wherein said balancer is formed as a carrier shaped correspondingly to an appropriate revolution body generatrix and furnished on its exterior with point light sources associated with said control means.

21. (currently amended) The stroboscopic display device according to Claim 19 wherein ~~the main~~ at least one of the carrier ~~and/or and the~~ balancer ~~are~~ is additionally furnished with point light sources on ~~their interior which faces~~ its respective interior facing the drive shaft axis.

Claim 22 (canceled).

23. (currently amended) The stroboscopic display device according to Claim [[22]] 38 wherein the ~~said~~ main and the ~~said~~ additional carriers are shaped and dimensioned identically and placed with angular spaces approximately aliquot to 45°.

24. (currently amended) The stroboscopic display device according to Claim [[22]] 38 wherein each carrier has an opposite cantilevered balancer placed in ~~the~~ a geometrical plane of ~~this~~ associated with each respective carrier.

25. (currently amended) The stroboscopic display device according to Claim 24 wherein each balancer is shaped correspondingly to an appropriate revolution body generatrix and exteriorly furnished with point light sources associated with said control means.

26. (currently amended) The stroboscopic display device according to Claim [[17]] 37 which has at least one additional rotary drive shaft spaced from the first rotary drive shaft and rotationally synchronized with the latter by a synchronizing means;

wherein the additional drive shaft ~~having~~ has at least one cantilevered carrier shaped correspondingly to an appropriate revolution body generatrix.

27. (currently amended) The stroboscopic display device according to Claim 26 wherein the ~~said~~ first drive shaft and at least one additional drive shaft are associated with a common motor by a synchronizing transmission.

28. (currently amended) The stroboscopic display device according to Claim [[17,]] 37, further comprising:

at least a second rotary drive shaft positioned adjacent and parallel to the output rotary drive shaft forming at least a first pair of adjacent parallel drive shafts, wherein each first pair of adjacent parallel drive shafts is synchronized in phase and placed with the space A defined by the expression

$$A < \max R_i + \max R_{i+1}$$

where $\max R_i + \max R_{i+1}$ is the sum of radii of circles described by the light sources maximally distanced from the axes of the corresponding drive shafts.

29. (currently amended) The stroboscopic display device according to Claim 28 which has more than two parallel drive shafts, each drive shaft having carriers shaped and situated identically in initial angular positions.

Claims 30-31 (canceled).

32. (currently amended) The stroboscopic display device according to Claim [[31]] 40, wherein the coaxial shafts of the rotary drive are associated with a common motor through a synchronizing transmission furnished with a control means to adjust the axial space between said drive shafts.

Claims 33-34 (canceled).

35. (new) The stroboscopic display device according to claim 23 wherein each carrier has an opposite cantilevered balancer placed in the geometrical plane of this carrier.

36. (new) The stroboscopic display device according to claim 27 wherein each pair of adjacent parallel drive shafts is synchronized in phase and placed with the space A defined by the expression

$$A < \max R_i + \max R_{i+1}$$

where $\max R_i + \max R_{i+1}$ is the sum of radii of circles described by the light sources maximally distanced from the axes of the corresponding drive shafts.

37. (new) A stroboscopic display device comprising:

- (a) a rotary drive which has an output shaft;
- (b) at least one carrier of point light sources, with the carrier being

cantilevered onto said shaft of the rotary drive and formed as a rod which has:

a shape corresponding to an appropriate revolution body generatrix;

a thickness m commensurable with the cross-section of a point light

source, wherein the thickness m of the carrier is defined by the expression:

$$d_{pls} < m \leq 9d_{pls}$$

where d_{pls} is the cross-section of the light emitting surface of a point light source; and

a width B, measured radially, which is sufficient for the carrier to illusorily disappear from the vision field of a spectator when gyrated, wherein the width B of the carrier is determined by the expression:

$$B \leq 0.1 R_{\max}$$

where R_{\max} is the radius of the circle described by the point light source which is maximally distanced from the axis of the drive shaft;

(c) a plurality of point light sources arranged on the external surface of said carrier; the optical axis of each said light source is perpendicular to the revolution body generatrix which is formed by a selected shape of said carrier; and

(d) a control means including a microprocessor to control said point light sources, wherein the control means includes:

a sensor to signal said carrier position,

a synchronizer to synchronize the operation of light sources, and

program means to record and process the data to be displayed and generate commands to cut in and out said light sources.

38. (new) The stroboscopic display device according to claim 37 wherein in the geometrical plane situated with respect to the geometrical plane of said carrier under the angle φ selected from the range of $0^\circ < \varphi < 180^\circ$ there is cantilevered onto the drive shaft at least one additional carrier shaped correspondingly to an appropriate revolution body generatrix, which has exterior point light sources associated with said control means.

39. (new) A stroboscopic display device comprising:

(a) at least one rotary drive associated with a plurality of parallel output rotary drive shafts, wherein pairs of adjacent parallel drive shafts are synchronized in phase and placed with the space A defined by the expression:

$$A < \max R_i + \max R_{i+1}$$

where $\max R_i + \max R_{i+1}$ is the sum of radii of circles described by the light sources maximally distanced from the axes of the corresponding drive shafts; and

wherein each drive shaft, except for the first and the last ones, has an additional long carrier together with the main carrier, but the first and last shafts have only short carriers shaped, dimensioned, and angularly positioned identically to the main carriers;

(b) a plurality of carriers of point light sources, wherein each carrier is cantilevered and shaped and situated identically in initial angular positions onto each respective rotary drive shaft of the rotary drive and formed as a rod which has:

a shape corresponding to an appropriate revolution body generatrix;

a thickness commensurable with the cross-section of a point light source;

and

a width, measured radially, which is sufficient for the carrier to illusorily disappear from the vision field of a spectator when gyrated;

(c) a plurality of point light sources arranged on the external surface of said carrier; the optical axis of each said light source is perpendicular to the revolution body generatrix which is formed by a selected shape of said carrier; and

(d) a control means including a microprocessor to control said point light sources, wherein the control means includes:

a sensor to signal said carrier position,
a synchronizer to synchronize the operation of light sources, and
program means to record and process the data to be displayed and
generate commands to cut in and out said light sources.

40. (new) A stroboscopic display device comprising:

(a) at least one rotary drive associated with an output rotary drive shaft and at least one additional rotary drive shaft spaced from the output rotary drive shaft and rotationally synchronized with the latter by a synchronizing means;

wherein the additional drive shaft has at least one cantilevered carrier shaped correspondingly to an appropriate revolution body generatrix; and

wherein the first rotary drive shaft and the additional rotary drive shaft are axially spaced coaxial drive shafts with at least one cantilevered carrier correspondingly shaped to an appropriate revolution body generatrix and placed in the axial space between said drive shafts;

(b) at least one carrier of point light sources, the carrier is cantilevered onto the drive shaft of the rotary drive and formed as a rod which has:

a shape corresponding to an appropriate revolution body generatrix,

a thickness commensurable with the cross-section of a point light source,

and

a width, measured radially, which is sufficient for the carrier to illusorily disappear from the vision field of a spectator when gyrated;

(c) a plurality of point light sources arranged on the external surface of said carrier; the optical axis of each said light source is perpendicular to the revolution body generatrix which is formed by a selected shape of said carrier; and

(d) a control means including a microprocessor to control said point light sources, wherein the control means includes:

a sensor to signal said carrier position,

a synchronizer to synchronize the operation of light sources, and

program means to record and process the data to be displayed and generate commands to cut in and out said light sources.